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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/723,736	11/26/2003	Gopal B. Avinash	135059-1/YOD (GEMS:0240)	9945

68174 7590 08/14/2008

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EXAMINER	
ABDI, AMARA	

ART UNIT	PAPER NUMBER
2624	

MAIL DATE	DELIVERY MODE
08/14/2008	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/723,736	AVINASH, GOPAL B.	
	Examiner	**Art Unit**	
	Amara Abdi	2624	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *02 July 2008*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-26* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☒ Claim(s) *18-20,22 and 25* is/are allowed.

6)☒ Claim(s) *1-3,5-13,15-17,21,23,24 and 26* is/are rejected.

7)☐ Claim(s) *4 and 14* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *04/24/2008* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

1. Applicant's response to the last office action, filed June 24, 2008 has been entered and made of record.

2. The submission of an Affidavit of Mr. Avinash under 37 CFR 1.132 filed on June 24, 2008 is sufficient to overcome the rejection of claims 4, 8, 9, 10, and 14 based upon declaring that any invention disclosed but not claimed in the Avinash reference was derived from the inventor of the present patent application and is, therefore, not an invention "by another".

3. Applicant's arguments, filed June 24, 2008, with respect to the rejection(s) of claim(s) 1, 21, and 24 under 35 U.S.C 103 have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of Cooper (US 7,215,365 B2).

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

5. Claims 1, 21, and 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fritz et al. (US-PGPUB 2003/0199762) in view of Tannenbaum et al. (US 6,535,623) and Cooper (US 7,215,365).

Fritz et al. disclose a method, apparatus (paragraph [0003], line 1-2) and computer readable medium encoded with a computer program (paragraph 0037], line 1-2) for accurately determining the intima-media thickness of a blood vessel, where characterizing the spike noise in the input image data (paragraph [0072], line 3-4), (the characterizing the spike noise in the input image data is read as reducing a spike noise in an image).

Fritz et al. do not explicitly mention the following items:

1) the processing of the input image data by identifying features of interest to produce processed image data;

2) performing a spike noise dependent blending of data derived from the input image data with the processed image data based upon the characterization.

(a) Obviousness in view of Tannenbaum et al.

Tannenbaum et al., in analogous environment, teaches a curvature based system for the segmentation and analysis of cardiac magnetic resonance images, where processing the input image data by identifying features of interest to produce processed image data (column 5, line 41-44).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to use the system of Tannenbaum et al., where processing the input image data by identifying features of interest, in the system of Fritz et al., in order to performing segmentation on discrete pixel images, such techniques would be particularly useful in analyzing moving tissues, such as those of the heart (column 2, line 48-55).

(b) Obviousness in view of Cooper

Cooper, in analogous environment, teaches a system and method for effectively calculating destination pixels in an image data processing procedure, where performing a blending procedure to blend the forgoing optimal processed image data (the processed image data) with the raw image data (the input image data) to thereby produce final image data (column 2, line 28-31).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to use the system of Cooper, where performing the spike noise dependent blending, in the system of Fritz et al., in order to provide an improved system and method for effectively performing an image data processing procedure (column 2, line 31-33).

6. Claims 2 and 5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fritz et al., Tannenbaum et al., and Cooper, as applied to claim 1 above, and further in view of Yu et al. (US 6,563,513).

(1) Regarding claim 2:

Fritz et al., Tannenbaum et al., and Cooper disclose all the subject matter as described in claim 1 above.

Fritz et al., Tannenbaum et al., and Cooper do not explicitly mention the rank-order filtering of the input image data.

Yu et al., in analogous environment, teaches an image processing method and apparatus for generating low resolution, low bit depth images, where filtering the image

valley with the rank order filter (column 3, line 4-7), (the filtering of the image valley with the rank order filter is read as the same concept as the filtering of the input image with the rank order filter).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to use the system of Yu et al., where filtering the image valley with the rank order filter, in the system of Fritz et al. in order enable efficient compression and transmission of images to mobile devices having low resolution displays (column 1, line 60-62).

(2) Regarding claim 5:

Fritz et al., Tannenbaum et al., and Cooper disclose all the subject matter as described in claim 2 above. (The blending of the rank order filtered input image data with the processed image data is read as the same concept as the blending of data derived from the input image data with the processed image data based)

Fritz et al., Tannenbaum et al., and Cooper do not explicitly mention the rank order filtering of the input image data.

Yu et al., in analogous environment, teaches an image processing method and apparatus for generating low resolution, low bit depth images, where filtering the image valley with the rank order filter (column 3, line 4-7), (the filtering of the image valley with the rank order filter is read as the same concept as the filtering of the input image with the rank order filter).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to use the system of Yu et al., where filtering the image valley with

the rank order filter, in the system of Fritz et al. in order enable efficient compression and transmission of images to mobile devices having low resolution displays (column 1, line 60-62).

7. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Fritz et al., Tannenbaum et al., Cooper, and Yu et al., as applied to claim 2 above, and further in view of Nishikawa et al. (US 5,673,332).

Fritz et al., Tannenbaum et al. and Yu et al. disclose all the subject matter as described in claim 2 above.

Fritz et al., Tannenbaum et al. and Yu et al. do not explicitly mention the computing of an absolute difference between the rank-order filtered input image data and the input image data.

Nishikawa et al., in analogous environment, teaches a computer-aided method for image feature analysis, where computing the absolute difference produced by the combining of the results of erosion and dilatation operation (column 21, line 42-43), (the absolute difference produced by the combining of the results of erosion and dilatation operation is read as the same concept as the computing of an absolute difference between the rank-order filtered input image data and the input image data).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to use the system of Nishikawa et al., where computing of an absolute difference, in the system of Fritz et al. in order to provide an automated

method and system for providing reliable early diagnosis of abnormal anatomic regions (column 3, line 38-40).

8. Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Fritz et al., Tannenbaum et al., and Cooper, as applied to claim 1 above, and further in view of Wilensky et al. (US 7,171,057).

Fritz et al., Tannenbaum et al., and Cooper disclose all the subject matter as described in claim 1 above.

Fritz et al., Tannenbaum et al., and Cooper do not explicitly mention the method, where the weighting factor is performed on discrete picture elements determined not to exhibit spike noise, and blending via a least a second weighting factor is performed on discrete picture elements determined to exhibit spike noise.

Wilensky et al., in analogous environment, teaches an image blending using non-affine interpolation, where using the formulas (5): blend = $(1-\beta)$ I1s+ β I2s (column 7, line 49), with a first weighting factor β varying between (0) to (1) (column 8, line 5), and (I1s and I2s means a non-noise components) on discrete picture elements (paragraph [0001], line 2) (the discrete picture element is read as a pixel) determined not to exhibit spike noise (the exhibit is read as display or show), (if β= 1, Blend= I1s+I2s, witch means a non-noise components (not to exhibit the spike noise). Wilensky et al. is using also the formula (6): blend= $\sqrt{}$ (1- β) * I1n+$\sqrt{}$ β * I2n) (column 7, line 50), with the second weighting factor $\sqrt{}$ β varying between (0) to (1) (column 8, line 5), and (I1n and I2n means a -noise components) on discrete picture elements (paragraph [0001], line 2),

(the discrete picture element is read as a pixel) determined to exhibit spike noise (the exhibit is read as display or show), (if β= 0, Blend = I1n + I2n witch means there is a noise component (to exhibit the spike noise).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to use the system of Wilensky et al., where blending the first and second image components, in the system of Fritz et al. because such feature result in a faster transition in the high-frequency components and thereby reduce the size of any region affected by noise cancellation while still allowing a gradual overall transition (column 1, line 64-67).

9. Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Fritz et al., Tannenbaum et al., and Cooper, as applied to claim 1 above, and further in view of Janko et al. (US 6,690,840).

Fritz et al., Tannenbaum et al., and Cooper disclose all the subject matter as described in claim 1 above.

Fritz et al., Tannenbaum et al., and Cooper do not explicitly mention the shrinking of the input image by a desired factor and interpolating the resulting image to the size of the input image.

Janko et al., in analogous environment, teaches an image alignment with global translation and linear stretch, where shrinking (linear stretch) of the input image by a desired factor (column 2, line 59-60) and interpolating the resulting image to the size of

the input image (column 3, line 6-10), (the inverse stretch is read as the same concept as the interpolating the resulting image to the size of the input image).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to use the system of Janko et al., where shrinking of the input image by a desired factor and interpolating the resulting image to the size of the input image, in the system of Fritz et al., in order to have an image alignment method that compensates for both the global translation and linear stretch (column 1, line 35-36).

10. Claims 11, 18-20, 23, and 26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tannenbaum et al. (US 6,535,623) in view of Hsieh (US 6,009,140) and Cooper (US 7,215,365).

(1) Regarding claims 11, 23, and 26:

Tannenbaum et al. disclose a method (column 8, line 66), system (column 1, line 9-10), and computer readable medium encoded with a computer program (column 5, line 27-29) for processing of the input image data by identifying features of interest to produce processed image data (column 5, line 41-44).

Tannenbaum et al. do not explicitly mention the following items:

1) determining a likelihood that discrete picture elements in the input image data exhibit spike noise; and

2) blending data derived from the input image data with the processed image data via weighting factors determined based upon the likelihood that the discrete picture elements exhibit spike noise.

(a) Obviousness in view of Hsieh

Hsieh, in analogous environment, teaches a stair-case suppression for computes tomography imaging, where the probability that the spike noise will be erroneously considered as high-density objects is determined within the boundary (column 2, line 15-17), (the likelihood is read as probability, and the discrete picture is read as CT imaging).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to use the system of Hsieh, where determining the probability to reduce the spike noise in the input image data, in the system of Tannenbaum et al. in order to provide a correction algorithm whish is effective in correcting images for stair case type artifacts in dental scans (column 1, line 58-60).

(b) Obviousness in view of Cooper

Cooper, in analogous environment, teaches a system and method for effectively calculating destination pixels in an image data processing procedure, where performing a blending procedure to blend the forgoing optimal processed image data (the processed image data) with the raw image data (the input image data) to thereby produce final image data (column 2, line 28-31) via a weighting factor (column 12, line 21-22). (The likelihood the discrete picture elements exhibit spike noise was described by Hsieh (column 2, line 15-17)).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to use the system of Cooper, where performing the spike noise dependent blending via a weighting factor, in the system of Fritz et al., in order to

provide an improved system and method for effectively performing an image data processing procedure (column 2, line 31-33).

(3) Regarding claim 18:

Tannenbaum et al. disclose a system for processing image data comprising:

a memory circuit for storing input image data (column 5, line 46-49);

a processing module for processing the input image data to generate image data (column 5, line 29-30).

Tannenbaum et al. do not explicitly mention the following items:

1) a spike noise blending module configured to determine a likelihood that discrete picture elements in the input image data exhibit spike noise;

2) and to blend data derived from the input image data with the processed image data via weighting factors determined based upon the likelihood that discrete picture exhibit spike noise.

(a) Obviousness in view of Hsieh

Hsieh, in analogous environment, teaches a stair-case suppression for computes tomography imaging, where the probability that the spike noise will be erroneously considered as high-density objects is determined within the boundary (column 2, line 15-17), (the likelihood is read as probability, and the discrete picture is read as CT imaging).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to use the system of Hsieh, where determining the probability to reduce the spike noise in the input image data, in the system of Tannenbaum et al. in

order to provide a correction algorithm whish is effective in correcting images for stair case type artifacts in dental scans (column 1, line 58-60).

(b) Obviousness in view of Cooper

Cooper, in analogous environment, teaches a system and method for effectively calculating destination pixels in an image data processing procedure, where performing a blending procedure to blend the forgoing optimal processed image data (the processed image data) with the raw image data (the input image data) to thereby produce final image data (column 2, line 28-31) via a weighting factor (column 12, line 21-22). (The likelihood the discrete picture elements exhibit spike noise was described by Hsieh (column 2, line 15-17)).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to use the system of Cooper, where performing the spike noise dependent blending via a weighting factor, in the system of Fritz et al., in order to provide an improved system and method for effectively performing an image data processing procedure (column 2, line 31-33).

(4) Regarding claim 20:

Tannenbaum et al. further disclose a system, comprising an image acquisition system for generating the input image data (Fig. 8, step 132, column 12, line 64-67).

11. Claims 16 and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tannenbaum et al., Hsieh, and Cooper , as applied to claims 11 and 18 above, and further in view of Wilensky et al. (US 7,171,057).

(1) Regarding claim 16:

Tannenbaum et al., Hsieh, and Cooper disclose all the subject matter as described in claim 11 above.

Tannenbaum et al., Hsieh, and Cooper do not explicitly mention that weighting factor is performed on discrete picture elements determined not to exhibit spike noise, and blending via a least a second weighting factor is performed on discrete picture elements determined to exhibit spike noise.

Wilensky et al., in analogous environment, teaches an image blending using non-affine interpolation, where using the formulas (5): blend = (1-β) I1s+ β I2s (column 7, line 49), with a first weighting factor β varying between (0) to (1) (column 8, line 5), and (I1s and I2s means a non-noise components) on discrete picture elements (paragraph [0001], line 2) (the discrete picture element is read as a pixel) determined not to exhibit spike noise (the exhibit is read as display or show), (if β= 1, Blend= I1s+I2s, witch means a non-noise components (not to exhibit the spike noise). Wilensky et al. is using also the formula (6): blend= √ (1- β) * I1n+√ β * I2n) (column 7, line 50), with the second weighting factor √ β varying between (0) to (1) (column 8, line 5), and (I1n and I2n means a -noise components) on discrete picture elements (paragraph [0001], line 2), (the discrete picture element is read as a pixel) determined to exhibit spike noise (the

exhibit is read as display or show), (if β= 0, Blend = I1n + I2n witch means there is a noise component (to exhibit the spike noise).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to use the system of Wilensky et al., where blending the first and second image components, in the system of Fritz et al. because such feature result in a faster transition in the high-frequency components and thereby reduce the size of any region affected by noise cancellation while still allowing a gradual overall transition (column 1, line 64-67).

(2) Regarding claim 19:

Tannenbaum et al., Hsieh, and Cooper disclose all the subject matter as described in claim 18 above. Furthermore, Tannenbaum et al. disclose a system where the processing module is defined by computer code in an appropriately programmed computer system (column 5, line 29-30).

Tannenbaum et al., Hsieh, and Cooper do not explicitly mention the blending module.

Wilensky et al., in analogous environment, teaches where the first and second image components are blended together to produce a blended component (Fig. 1, step 110, column 4, line 63-66), (it is read that producing of blended component has a blending module).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to use the system of Wilensky et al., where using a blending module, in the system of Fritz et al. because such feature result in a faster transition in

the high-frequency components and thereby reduce the size of any region affected by noise cancellation while still allowing a gradual overall transition (column 1, line 64-67).

12. Claims 12 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tannenbaum et al., Hsieh and Cooper, as applied to claim 11 above, and further in view further in view of Yu et al. (US 6,563,513).

(1) Regarding claim 12:

Tannenbaum et al., Hsieh and Cooper disclose all the subject matter as described in claim 11 above.

Tannenbaum et al., Hsieh and Wilensky et al. do not explicitly mention the rank-order filtering of the input image data.

Yu et al., in analogous environment, teaches an image processing method and apparatus for generating low resolution, low bit depth images, where filtering the image valley with the rank order filter (column 3, line 4-7), (the filtering of the image valley with the rank order filter is read as the same concept as the filtering of the input image with the rank order filter).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to use the system of Yu et al., where filtering the image valley with the rank order filter, in the system of Fritz et al. in order enable efficient compression and transmission of images to mobile devices having low resolution displays (column 1, line 60-62).

(2) Regarding claim 15:

Tannenbaum et al., Hsieh and Cooper disclose all the subject matter as described in claim 12 above. (The blending of the rank order filtered input image data with the processed image data is read as the same concept as the blending of data derived from the input image data with the processed image data based)

Tannenbaum et al., Hsieh and Wilensky et al. do not explicitly mention the rank order filtering of the input image data.

Yu et al., in analogous environment, teaches an image processing method and apparatus for generating low resolution, low bit depth images, where filtering the image valley with the rank order filter (column 3, line 4-7), (the filtering of the image valley with the rank order filter is read as the same concept as the filtering of the input image with the rank order filter).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to use the system of Yu et al., where filtering the image valley with the rank order filter, in the system of Fritz et al. in order enable efficient compression and transmission of images to mobile devices having low resolution displays (column 1, line 60-62).

13. Claim 13 is rejected under 35 U.S.C. 103(a) as being unpatentable over Tannenbaum et al., Hsieh, Cooper, and Yu et al., as applied to claim 12 above, and further in view of Nishikawa et al. (US 5,673,332).

Tannenbaum et al., Hsieh, Cooper, and Yu et al. disclose all the subject matter as described in claim 12 above.

Tannenbaum et al., Hsieh, Cooper, and Yu et al. do not explicitly mention the computing of an absolute difference between the rank-order filtered input image data and the input image data.

Nishikawa et al., in analogous environment, teaches a computer-aided method for image feature analysis, where computing the absolute difference produced by the combining of the results of erosion and dilatation operation (column 21, line 42-43), (the absolute difference produced by the combining of the results of erosion and dilatation operation is read as the same concept as the computing of an absolute difference between the rank-order filtered input image data and the input image data).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to use the system of Nishikawa et al., where computing of an absolute difference, in the system of Fritz et al. in order to provide an automated method and system for providing reliable early diagnosis of abnormal anatomic regions (column 3, line 38-40).

14. Claim 17 is rejected under 35 U.S.C. 103(a) as being unpatentable over Tannenbaum et al., Hsieh, and Cooper, as applied to claim 11 above, and further in view of Janko et al. (US 6,690,840).

Tannenbaum et al., Hsieh, and Cooper disclose all the subject matter as described in claim 11 above.

Tannenbaum et al., Hsieh, and Cooper do not explicitly mention the shrinking of the input image by a desired factor and interpolating the resulting image to the size of the input image.

Janko et al., in analogous environment, teaches an image alignment with global translation and linear stretch, where shrinking (linear stretch) of the input image by a desired factor (column 2, line 59-60) and interpolating the resulting image to the size of the input image (column 3, line 6-10), (the inverse stretch is read as the same concept as the interpolating the resulting image to the size of the input image).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to use the system of Janko et al., where shrinking of the input image by a desired factor and interpolating the resulting image to the size of the input image, in the system of Fritz et al., in order to have an image alignment method that compensates for both the global translation and linear stretch (column 1, line 35-36).

Allowable Subject Matter

15. The following is an examiner's statement of reasons for allowance:

(a) Independent claims 8, 22, and 25 are allowable over the prior art of record.

Claims 9 and 10 depend from claim 8, therefore, are allowable.

Independent claim 8, recite the limitation: "generating a multi-level mask of spike noise likelihood based upon the absolute differences". The combination of this feature as cited in the claim with the other limitations of the claim is neither disclosed nor suggested by the prior art.

The closest reference of US 5,673,332 to Nishikawa et al. disclose a computer aided method for image feature analysis. However this reference either by itself or in combination with other references does not teaches the generating a multi-level mask of spike noise likelihood based upon the absolute differences

(b) Claim 4 and 14 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Contact Information:

16. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Amara Abdi whose telephone number is (571)270-1670. The examiner can normally be reached on Monday through Friday 8:00 Am to 4:00 PM E.T..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jingge Wu can be reached on (571) 272-7429. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Amara Abdi/
Examiner, Art Unit 2624

/Samir A. Ahmed/
Supervisory Patent Examiner, Art Unit 2624